



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/063,146	03/25/2002	Nien-Hui Hsu	OTMP0020USA	2720

27765 7590 09/15/2003

NAIPO (NORTH AMERICA INTERNATIONAL PATENT OFFICE)
P.O. BOX 506
MERRIFIELD, VA 22116

EXAMINER

HUSAR, STEPHEN F

ART UNIT

PAPER NUMBER

2875

DATE MAILED: 09/15/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/063,146

Applicant(s)

HSU ET AL.

Examiner

Stephen F. Husar

Art Unit

2875

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 April 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-7 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-7 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Claim Objections

1. Claims 3,5 and 6 are objected to because of the following informalities: there is no clear antecedence in applicant's specification to support the noise level of equal to or lower than 35 dB as set forth in claim 3 and the fan speeds of 3,000 rpm and 2,500 rpm set forth in claims 5 and 6 respectively. The only noise levels and fan speeds specified in applicant's specification are 32 dB and 2,400 rpm. Appropriate correction is required. The addition of these noise levels and fan speeds to applicant's specification would not be considered new matter as they are set in forth in the claims as originally filed. But would help clarify the scope of the invention as well provide clear antecedence for the claimed limitations.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 1 and 2 are rejected under 35 U.S.C. 102(e) as being anticipated by TAKIZAWA et al. (6,419,364). TAKIZAWA et al. shows in Fig.4: a light source (8) formed in housing (9021) having an interior region and an exterior region, a first and second axial exhaust fan (16,16) wherein the two exhaust fans (16,16) form two

airstreams in the interior and exterior region of housing (9021) for cooperatively cooling the light source (8).

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

6. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).


7. Claims 5 and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over TAKIZAWA et al. (6,419,364) as applied to claim 1 above, and further in view of MIYAMOTO et al. (6,443,575). Claims 3-6 distinguish over TAKIZAWA ET AL. only in that TAKIZAWA ET AL. does not recite specific speed and noise levels for the two exhaust fans (16,16). With respect to the recited speed and noise levels MIYAMOTO ET AL. shows that it is well known in the art that fan noise and speed are directly related, see col.4, lines 57-65. MIYAMOTO ET AL. further shows that it is known that high fan speed and hence high noise are undesirable qualities in a projector such as TAKIZAWA ET AL. or MIYAMOTO ET AL.. It would have been obvious to one of ordinary skill in the art at the time of the invention to provide TAKIZAWA ET AL.'s fans with a low noise level of 32 and 35 dB making their fan speeds 2500 and 3000 rpm, respectively, as shown by MIYAMOTO ET AL. for the purpose of making the projector quieter and therefore a more desirable product.
8. Claims 3,4, and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over TAKIZAWA ET AL. (6,419,364) as applied to claim 1 above, and further in view of TABUCHI ET AL. (6,488,378). TAKIZAWA ET AL. shows the invention substantially as claimed except for the fan noise levels of 32 and 35 dB and the cooling system further having a blower for cooling the light core. TABUCHI ET AL. shows in the chart in Fig.16 that it is known to provide low fan noise levels of 35 and 32 dB in the high frequency ranges for the purpose of creating a quiet viewing environment, see col. 2, lines 34-38. TABUCHI ET AL. further shows in Fig.2, a blower (20) for cooling the light core in conjunction with an exhaust fan for keeping the lamp from overheating. It would have

been obvious to one of ordinary skill in the art at the time of the invention to provide fan noise levels of 35 and 32 dB as well as a blower for cooling the light core in TAKIZAWA ET AL. as taught by TABUCHI ET AL. for the purposes of creating a quiet viewing environment in which projection bulbs don't fail due to overheating.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Stephen F. Husar whose telephone number is 703-308-1932. The examiner can normally be reached on Monday-Friday from 7:30-4:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sandra O'Shea can be reached on 703-305-4939. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0956.


Stephen F. Husar
Primary Examiner
Art Unit 2875

SFH